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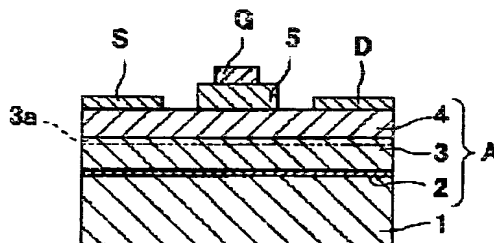
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TITLE : HIGH ELECTRON MOBILITY
TRANSISTOR



ABSTRACT : PROBLEM TO BE SOLVED: To provide a high electron mobility transistor(HEMT) of GaN compound semiconductor where a high voltage can be applied.

SOLUTION: A laminated structure A is composed of an I-type semiconductor layer 3 and an N-type semiconductor layer 4 laminated in this sequence on a semi-insulating substrate 1, wherein the semiconductor layers are all formed of GaN compound semiconductor. A gate electrode G is provided in the N-type semiconductor layer 4 through the intermediary of a P-type semiconductor layer 5 of GaN compound semiconductor, a source electrode S and a drain electrode D are provided direct onto the N-type semiconductor layer 4, and the P-type semiconductor layer 5 is a single-layer structure of P-type GaN layer or P-type InGaN layer or a two-layered structure composed of a P-type GaN layer and a P-type InGaN layer.

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